# 18$^{ième}$ Conference of the "*Association de Comptabilité Nationale*"
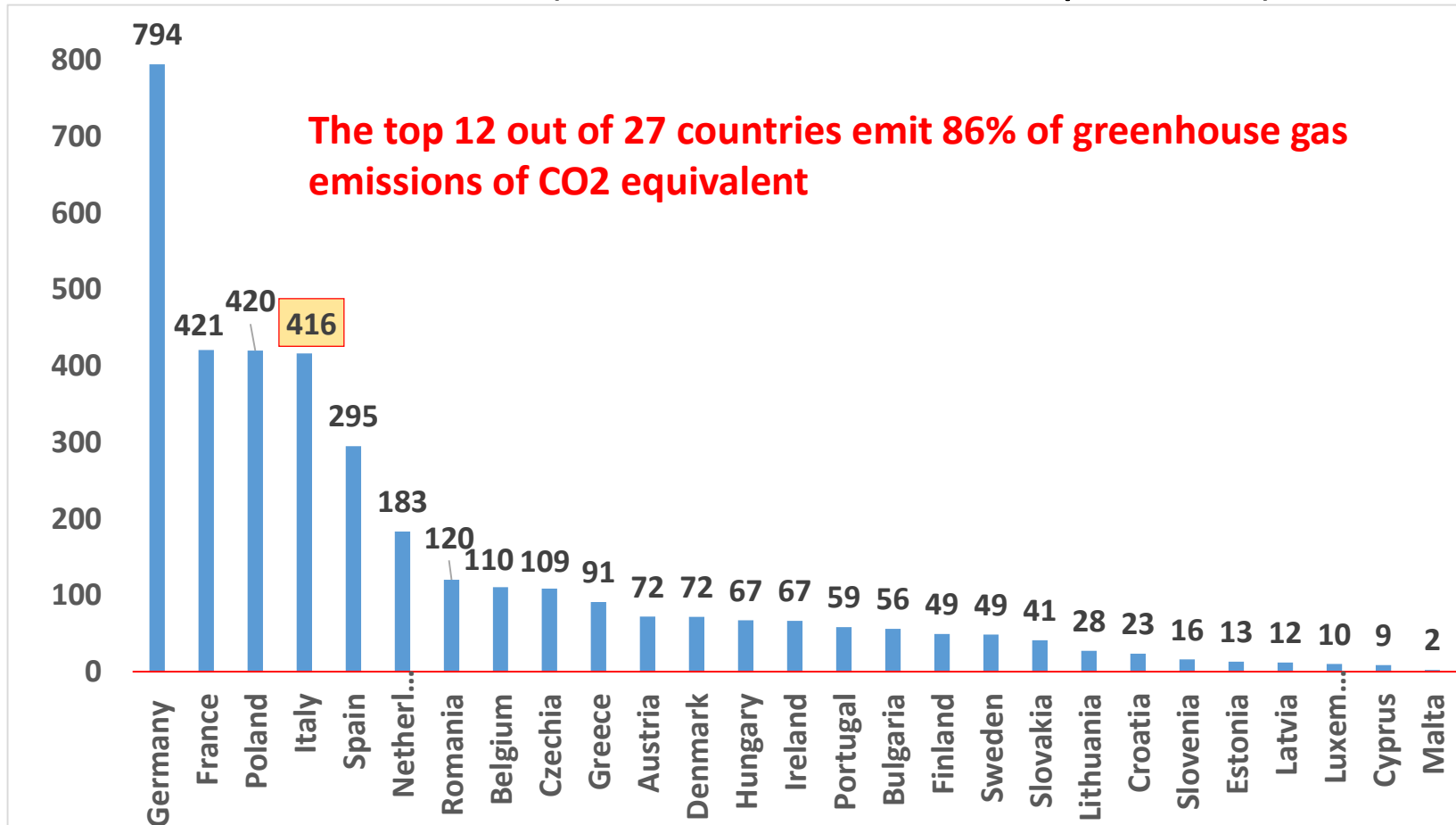
**20 et 21 juin 2024 ,Paris**

## A proposal for a new classification to monitor actions that benefit the environment of Enterprises, Households, and Public Administration

Istat ·Senior Researcher     **Monica Montella**

# The presentation is organized as follows:

•**Introduction** Emissions CO2 in Europe, Greenhouse gas emissions and actions of the European Commission

•**Purpose and structure of the paper** proposes a new analysed classification for major economic players (enterprises, household and public administration) to be submitted to the United Nations Statistical Commission for its adoption as international classification to monitor the pro-climate actions of countries regarding climate change.

> 1.**Enterprises**
> 2.**Household**
> 3.**Public administration**

•**Towards a new classification scheme with criteria that define the purpose and structure the Environmentally sustainable economic activities** provides some background information on the purpose and structure of the paper and presents an example of the connection of the new classification ECO-SEA Classification - codification of eco-sustainable economic activities linked to the classification of each main actor households (COICOP) enterprises (NACE Rev.2) and public administration (COFOG).

•**Classification criteria** presents the structure of the new classification with the actions in favour of the six environmental objectives and explanatory notes to the actions of the classification integrated with the environmental objectives.

•**Conclusion and Outlook**

# Emissions CO2 in Europe

**Europe –** Greenhouse gas emissions (NAMEA) by member state, by total Nace Rev. 2 production activities, and by households
Year 2021 (million tons of CO2 equivalent)

**The top 12 out of 27 countries emit 86% of greenhouse gas emissions of CO2 equivalent**

| Country | Value |
|---|---|
| Germany | 794 |
| France | 421 |
| Poland | 420 |
| Italy | 416 |
| Spain | 295 |
| Netherl... | 183 |
| Romania | 120 |
| Belgium | 110 |
| Czechia | 109 |
| Greece | 91 |
| Austria | 72 |
| Denmark | 72 |
| Hungary | 67 |
| Ireland | 67 |
| Portugal | 59 |
| Bulgaria | 56 |
| Finland | 49 |
| Sweden | 49 |
| Slovakia | 41 |
| Lithuania | 28 |
| Croatia | 23 |
| Slovenia | 16 |
| Estonia | 13 |
| Latvia | 12 |
| Luxem... | 10 |
| Cyprus | 9 |
| Malta | 2 |

# Greenhouse gas emissions

**Europe**

- In 2021, greenhouse gas emissions from the 27 European countries totalled 3,605 million tons of $CO_2$ equivalent.
- The energy sector is responsible for about 75 percent of the European Union's greenhouse gas emissions and thus plays a key role in climate change mitigation and adaptation.
- In Europe, Italy together with Poland, after Germany and France, is the country that contributes 416 million tons of greenhouse gas emissions to global warming.
- Moving beyond the principle of "**Do No Significant Harm**" **DNSH** the environment to instead measuring positive actions related to the six environmental goals of the European taxonomy.

**Italy**

- Italy's manufacturing system generates 3 quarters of the total climate-changing emissions (industry 48%, services 17% and agriculture 10%) of the entire economy, compared to households that contribute only 25% of emissions.
- In particular, the manufacturing and energy industries absorb around 166 million tonnes of $CO_2$ out of a total of 199 million tonnes and contribute significantly to greenhouse gas emissions .

# European Commission

➢ The European Commission has presented a plan to reduce EU greenhouse gas emissions by at least 55 percent in 2030 (compared to 1990 levels).

➢ The New European Taxonomy (EU Regulation 2020/8524, which came into effect on July 12, 2020) describes the actions of environmentally sustainable economic activities and the "**Do no significant harm**" principle enshrined in Article 17, and effectively provides a new "**classification system for environmentally sustainable economic activities**."

➢ Thus, It is necessary to propose new indicators capable of measuring in progress at the same time to use a common language to define the actions taken at the European level.

**How can coordinated action at the European level be measured to achieve the six environmental objectives?**

# A new proposal use European taxonomy: classification of six environmental objectives

The European taxonomy has introduced the classification of six environmental objectives to which an economic activity shall qualify to connect such as:

1. **Climate change mitigation** (starting from 1 January 2022);
2. **Climate change adaptation** (starting from 1 January 2022);
3. **The sustainable use and protection of water and marine resources** (starting from 1 January 2023);
4. **The transition to a circular economy** (starting from 1 January 2023);
5. **Pollution prevention and control** (starting from 1 January 2023);
6. **The protection and restoration of biodiversity and ecosystems** (starting from 1 January 2023).

# Monitor the achievement of the environmental

➢ **Enterprises** through their activities, play a key role in contributing to the fight against climate change.  Indeed, they are required to disclose much information about the environmental impact of their business model and strategy. They also need to demonstrate the activities carried out for the transition to a sustainable and climate-neutral economy, including information on climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and biodiversity and ecosystem protection and restoration.

➢ **Households** through their consumption choices can contribute to achieving the six environmental objectives, through the reclassification of the data on household consumption in the Italian economic territory we can know the positive or negative impact of choices on the environment.

➢ **Public Administration** should adopt an ECO-VAS - codification of environmentally sustainable economic activities - to measure climate-friendly public policies. One tool could be the reclassification of the general state budget with the intention of representing the consistency of primary environmental spending with the objectives of the European taxonomy. **An example of how to use classification: Eco-budget.**

# For monitor sustainable economic growth

In order to establish the degree of an environmentally sustainable economic activity of the turnover and/or of an industrial investment whose industrial production has a positive impact on the environment, the entrepreneurial economic activity, which forms the basis for the collection, data compilation and dissemination in each field of statistics, can be classified as:

1. "**eco-sustainable economic activity**" which complies with the criteria for which an economic activity qualifies as eco-sustainable;
2. "**transitional economic activities**" are those that contribute substantially to climate change mitigation;
3. "**enabling economic activity**" which contributes substantially to one or more of the environmental objectives;
4. "**economic activity eligible for the taxonomy**" described in the acts delegated by the European Commission;
5. "**non-sustainable economic activity - ineligible for taxonomy**" is that which is not described in regulations or directives, and by implication are those which cause significant damage to the environment.

# For monitor sustainable economic growth

➢ We need a new classification to track positive actions related to the six environmental goals introduced with the European taxonomy undertaken by key economic actors such as **Enterprises, Households** and **Public Administration** .

➢ The type of economic activity (Nace Rev.2) related to the eco-sustainable one will be analysed and coded with the one to which it belongs:
  - o all-sustainable (A);
  - o transitional and enabling, partially sustainable (B, C, D);
  - o completely unsustainable (E).

**How can we monitor sustainable economic growth?**

# Goal 9 SDGs (Industry, innovation and infrastructure)

➢ For monitoring Global Goal 9 (Industry) of the SDGs-promoting inclusive and sustainable industrialization-the indicator 9.4.1 $CO_2$ emission intensity per unit of value added produced expressed in tons per million-is currently used.

➢ What is missing, however, is an economic indicator that takes into account the climate-friendly actions implemented by economic actors to reduce greenhouse gas emissions, become resilient and reduce environmental damage.

# Enterprises
# monitor achievement of environmental objectives

The next slide in a nutshell shows, once the value of production net of costs has been processed and reclassified, the eco-sustainable value added, from which a new indicator the eco-sustainable gross domestic product "Eco-GDP" can be constructed.

Based on information made available as a result of the European Taxonomy Regulation is possible to create a table of correspondence between the different classifications for activities and products-services (ISIC/NACE/ATECO, CPC/CPA, PRODCOM, etc.) and a list of activities, products, and services considered relevant for the purposes of compliance with the principle "**do not significant harm**" connected to six environmental objectives with which economic activity is associated under the EU technical criteria for environmentally sustainable economic activities.

# Enterprises

**The use of this classification will enable industries to gather information for their environmental projects in line with the criteria established in the European taxonomy. We can measure a new indicator: ECO-GDP.**

| New classification ECO - codification of eco-sustainable economic activity qualifies as environmentally sustainable | Economic activity NACE REV.2 | | | Production | Costs | Added value at market prices |
|---|---|---|---|---|---|---|
| | A: Agriculture, forestry and fishing | BTF: mining, manufacturing, supply of electricity, gas, steam and air conditioning, water, sewage, waste treatment and remediation, construction | GTU: service | | | |
| | NACE 1 - 2 | NACE 1 - 2 | NACE ... | | | |
| A. "eco-sustainable economic activity" that respects criteria an economic activity qualifies as environmentally sustainable; | | | | | | |
|   1. the mitigation of climate change     OAMCC 1.1     OAMCC 1.1.1 improving energy efficiency etc. | | | X | X | X | X |
|   2. adaptation to climate change | | X | | X | X | X |
|   3. sustainable use and protection of water and marine resources | X | | | X | X | X |
|   4. the transition to a circular economy | | X | | X | X | X |
|   5. the prevention and reduction of pollution | | X | | X | X | X |
|   6. the protection and restoration of biodiversity and ecosystems | X | | | X | X | X |
| B. "transitional economic activities" which contribute substantially to the mitigation of climate change; | X | | | X | | X |
| C. "enabling economic activity" which contributes substantially to one or more of the environmental objectives; D. "economic activity eligible for taxonomy" described in the acts delegated by the European Commission; | | X | | X | | X |
| E. "non-eco-sustainable economic activity - not eligible for taxonomy" not described in documents, that which causes significant damage to the environment. | X | X | X | X | | X |
| **Tot A** | X | X | X | X | X | **ECO GDP (10%)** |
| Tot B-D | X | X | X | X | X | **TRANSITION GDP (30%)** |
| Tot E | X | X | X | X | X | No ECO GDP (60%) |
| **Total economy** | | | | | | **GDP ( Year 2021- 1.787.675)** |

# Enterprises
# monitor achievement of environmental objectives

In order to monitor how member states reduce $CO_2$ emissions by 33 percent and the economic impact this environmental policy may have on their national economies, it is necessary to collect as much information as possible from industries, including through their financial statements (sustainability report). The main advantage of adding questions to existing surveys is limiting the additional cost for the statistical institutes.

Furthermore, it is often simpler to add an extra variable to an existing survey than to launch an entirely new survey. One can analyse the accounting data contained in the environmental reports of corporate financial statements or download the data directly from the **Climate-ADAPT digital platform at the European Commission**.

**The new indicator, on the other hand, which was presented at the Eleventh Annual IAERE Conference (Poster 11th IAERE 2023), allows monitoring of positive climate actions taken by industries and in more general terms by all economic actors. And it is also allowed to monitor the transitional and enabling value added.**

# The limits of the Environmental Goods and Services sector account

➢ Official statistics at the international level has dedicated the Environmental Goods and Services Sector Accounts (Egss) also known as the eco-industries account.

➢ This account measures how much of the value of the goods and services that the system produces has as its main purpose the protection of the environment (prevention, reduction or elimination of pollution and any other form of degradation of the natural environment) or the management of natural resources (conservation, maintenance and enhancement of stocks of natural resources and their protection from depletion).

❖ **The problem is that this account has an important limitation: it focuses only on the value supply of goods and services that directly serve environmental purposes, regardless of who produces them (environmental product supply). Instead, we all need to know more about who produces, how they produce, and what actions they take to meet the six environmental goals for climate change.**

❖ **In 2020, eco-industries represent only 2,46 percent of GDP.**

# ECO-GDP in Environmental goods and services account

## Gross Value Added of Environmental Goods and Services Sector Accounts

| Classification CEPA-CREMA | 2018 | 2019 | 2020 | 2019/2018 | Example linked to the six environmental objectives |
|---|---|---|---|---|---|
| CEPA 1 - PROTECTION OF AMBIENT AIR AND CLIMATE | 1.019 | 998 | 887 | -2,1 | 1. - Climate change mitigation  2. - Climate change adaptation |
| CEPA 2 - WASTEWATER MANAGEMENT | 4.183 | 4.292 | 4.353 | 2,6 | 3. The sustainable use and protection of water and marine resources |
| CEPA 3 - WASTE MANAGEMENT | 9.120 | 9.225 | 9.277 | 1,2 | 1. Climate change mitigation  4. the transition to a circular economy 5. pollution prevention and control |
| CEPA 4 - PROTECTION AND REMEDIATION OF SOIL, GROUNDWATER AND SURFACE WATER | 2.426 | 2.499 | 2.558 | 3,0 | 3. The sustainable use and protection of water and marine resources |
| CEPA 5 - NOISE AND VIBRATION ABATEMENT (EXCLUDING WORKPLACE PROTECTION) | 233 | 279 | 240 | 19,7 | 5. Pollution prevention and control |
| CEPA 6 - PROTECTION OF BIODIVERSITY AND LANDSCAPES | 1.402 | 1.410 | 1.401 | 0,6 | 6. The protection and restoration of biodiversity and ecosystems |
| CEPA 7 - PROTECTION AGAINST RADIATION (EXCLUDING EXTERNAL SAFETY) | 1.848 | 1.825 | 1.807 | -1,3 | 5. Pollution prevention and control |
| **Total activities for environmental protection** | **20.230** | **20.527** | **20.522** | **1,5** | |
| CREMA 10 - MANAGEMENT OF WATER | 120 | 140 | 137 | 17,1 | 3. The sustainable use and protection of water and marine resources |
| CREMA 11 - MANAGEMENT OF FOREST RESOURCES (**CREMA 11A**: MANAGEMENT OF FOREST AREAS **CREMA 11B**: MINIMISATION OF THE INTAKE OF FOREST RESOURCES) | 1.319 | 1.382 | 1.459 | 4,8 | 6. the protection and restoration of biodiversity and ecosystems |
| CREMA 12 - MANAGEMENT OF WILD FLORA AND FAUNA | 222 | 207 | 209 | -6,7 | 1. - Climate change mitigation  2. - Climate change adaptation |
| CREMA 13 - MANAGEMENT OF ENERGY RESOURCES | 17.936 | 17.385 | 16.204 | -3,1 | 1. Climate change mitigation  4. the transition to a circular economy |
| *CREMA 13A : PRODUCTION OF ENERGY FROM RENEWABLE SOURCES* | *11.814* | *11.137* | *10.650* | *-5,7* | 1. - Climate change mitigation |
| *CREMA 13B : HEAT/ENERGY SAVING AND MANAGEMENT* | *5.829* | *5.946* | *5.220* | *2,0* | 1. - Climate change mitigation |
| *CREMA 13C : MINIMISATION OF THE INTAKE OF FOSSIL ENERGY RESOURCES AS RAW MATERIAL* | *292* | *302* | *334* | *3,4* | ABI 1. Enabling activities |
| **CREMA 14:** MANAGEMENT OF MINERALS | 2.374 | 2.457 | 2.320 | 3,5 | 4. the transition to a circular economy |
| **Total of natural resource management activities** | **21.970** | **21.571** | **20.328** | **-1,8** | **Total of the six environmental objectives** |
| **TOTAL** | **42.200** | **42.097** | **40.850** | **-0,2** | |
| **GDP** | **1.771.391** | **1.796.649** | **1.661.020** | **1,4** | **GDP** |
| **Eco-industry - Gross Value Added/GDP** | **2,38** | **2,34** | **2,46** | | **ECO-GDP** |

## The eco-industry sector in Italy is mainly concentrated in two areas of intervention: waste management and management of energy resources

# Households

- ❖ In Italy Households contribute to emissions only with 25.6 percent of the entire economy.
- ❖ Households' emissions are attributable almost equally to transportation (45.1 percent) and home heating (42.3 percent) with the remainder attributable to solvent use.
- ❖ Households, despite the sharp reduction in the decade examined in the emissions for which they are responsible, continue to play an important role in emissions of particulate matter (52.8 percent of the 2018 total) and tropospheric ozone precursors (34.4 percent of the total) caused mainly by the use of biomass for space heating households and of fossil fuels in transportation.
- ❖ Households spend on environmental protection as consumers of waste management services, sewage treatment and other environmental protection services.
- ❖ Currently in national accounts, household spending is measured for the largest component, namely the purchase of water purification or waste management services.
- ❖ We today still do not know the extent to which households are contributing to reducing the impact of the six environmental objectives. The following table can be a proposal. **We can measure a new <u>eco-sustainable consumption</u> indicator.**

# Households

**By linking the consumption expenditure of households classified with COICOP with eco-sustainable economic activities, it is possible to reclassify household consumption purchase choices for the six environmental goals. We can measure a new eco-sustainable consumption indicator.**

| Codification of eco-sustainable economic product qualifies as environmentally sustainable | Classification of individual consumption by purpose (COICOP) | | | | | | | | | | | | | Total consumption by eco-sustainable action |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 01 FOOD AND NON-ALCOHOLIC BEVERAGES | 02 ALCOHOLIC BEVERAGES, TOBACCO AND NARCOTICS | 03 CLOTHING AND FOOTWEAR | 04 HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS | 05 FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE HOUSEHOLD MAINTENANCE | 06 HEALTH SERVICES | 07 TRANSPORT | 08 INFORMATION AND COMMUNICATION | 9 RECREATION, SPORT AND CULTURE | 10 EDUCATION SERVICES | 11 RESTAURANTS AND ACCOMMODATION SERVICES | 12 INSURANCE AND FINANCIAL SERVICES | 13 PERSONAL CARE, SOCIAL PROTECTION AND MISCELLANEOUS GOODS AND SERVICES | |
| **New classification ECO** | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | COICOP ... | |
| A. "eco-sustainable economic activity" that respects criteria an economic activity qualifies as environmentally sustainable; | | | | | | | | | | | | | | |
| 1. the mitigation of climate change OAMCC 1.1 | X | | | X | X | X | X | | | | X | | X | X |
| OAMCC 1.1.1 improving energy efficiency etc. | | | | | | | | | X | | | | | |
| 2. adaptation to climate change | | | | X | | | | | | | | | X | X |
| 3. sustainable use and protection of water and marine resources | | | | | | | | | | | | | | X |
| 4. the transition to a circular economy | | X | | | | | | | X | | | | | X |
| 5. the prevention and reduction of pollution | | | | | | | | X | | | | | | X |
| 6. the protection and restoration of biodiversity and ecosystems | | | | X | | | | | | | | | | X |
| B. "transitional economic activities" which contribute substantially to the mitigation of climate change; | | | X | X | | | | | | | | | | X |
| C. "enabling economic activity" which contributes substantially to one or more of the environmental objectives; | | | | | | | | | | | | | | |
| D. "economic activity eligible for taxonomy" described in the acts delegated by the European Commission; | | | | | | | | | | | | | | |
| E. "non-eco-sustainable economic activity - not eligible for taxonomy" not described in documents, that which causes significant damage to the environment. | X | X | X | X | X | X | X | X | X | X | X | | X | X |
| **Tot A by purpose (COICOP)** | X | X | | X | X | X | X | X | X | | X | | X | **ECO Consumption (10%)** |
| Tot B-D by purpose (COICOP) | X | X | X | X | X | X | X | X | X | X | X | | X | **TRANSITION consumption (30%)** |
| **Tot E by purpose (COICOP)** | X | X | X | X | X | X | X | X | X | X | X | | X | **No ECO Consumption (60%)** |
| Total Household consumption in the economic territory by purpose (COICOP) | | | | | | | | | | | | | | ( Year 2021- 1.028.391) |

# Public Administration Expenditure

⇨ Greatly absent from environmental expenditure today is **climate change mitigation and adaptation**.

Some of the areas of sustained spending on climate change mitigation and adaptation that may be missing or underestimated in the Eco-budget include, for example:

- **Sustainable and intelligent mobility**: measures to promote sustainable mobility, such as investments in public transport, cycling infrastructure and low-emission vehicles, may not be fully captured in the eco-budget.
- **Electromagnetic pollution**: issues related to electromagnetic pollution, often associated with the use of wireless technologies, may not be adequately addressed.
- **Energy efficient public housing**: investments in public housing to promote energy efficient construction and renovation may be overlooked or undervalued in EIAs.
- **Tackling land consumption**: measures to combat land consumption, such as sustainable urban planning policies, may not be fully accounted for.
- **Carbon capture and sequestration technologies**: investments in advanced carbon capture and sequestration technologies, which are critical to addressing greenhouse gas emissions, may not be adequately reflected in the eco-budget.

The following table can be a proposal. **We can measure a new indicator: Eco-expenditure of the Public Administration.**

# Public Administration

**Politicians can divert financial resources to Enterprises that have invested in environmental sustainability. These data are broken down by function according to the Classification COFOG and by economic nature. We can measure a new <u>indicator: Public Administration Eco-Expenditure.</u>**

| Codification of eco-sustainable economic activity qualifies as environmentally sustainable | Classification of General government expenditure by function (COFOG) | | | | | | | | | | General government expenditure by eco-sustainable action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 General public services | 2 Defense | 3 Public order and safety | 4 Economic affairs | 5 Environmental protection | 6 Housing and community amenities | 7 Health | 8 Recreation, culture and religion | 9 Education | 10 Social protection | |
| **New classification ECO-SEA** | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | COFOG... | |
| **A. "eco-sustainable economic activity" that respects criteria an economic activity qualifies as environmentally sustainable;** | | | | | | | | | | | |
| **1. the mitigation of climate change** | X | | | X | X | X | X | | | | |
| **OAMCC 1.1** | | | | | | | | | | | |
| **OAMCC 1.1.1 improving energy efficiency etc.** | | | | | | | | | X | | |
| **2. adaptation to climate change** | | | | X | | | X | | | | |
| **3. sustainable use and protection of water and marine resources** | | | | | | X | | | | | |
| **4. the transition to a circular economy** | | X | | | | | | | X | | |
| **5. the prevention and reduction of pollution** | | | | | X | | | X | | | |
| **6. the protection and restoration of biodiversity and ecosystems** | X | | | X | | | | | | | |
| **B. "transitional economic activities" which contribute substantially to the mitigation of climate change;** | | | X | X | | | | | | | |
| **C. "enabling economic activity" which contributes substantially to one or more of the environmental objectives;** | | | | | | | | | | | |
| **D. "economic activity eligible for taxonomy" described in the acts delegated by the European Commission;** | | | | | | | | | | | |
| **E. "non-eco-sustainable economic activity - not eligible for taxonomy" not described in documents, that which causes significant damage to the environment.** | X | X | X | X | X | X | X | X | X | X | X |
| **Tot A by function (COFOG)** | X | X | | X | X | X | X | X | X | X | **ECO expenditure (10%)** |
| **Tot B-D by function (COFOG)** | X | X | X | X | X | X | X | X | X | X | **TRANSITION expenditure (30%)** |
| **Tot E by function (COFOG)** | X | X | X | X | X | X | X | X | X | X | **No ECO expenditure (60%)** |
| **Total General government expenditure by function (COFOG)** | | | | | | | | | | | **( Year 2021- 986.167)** |

*Source: <u>WP SEEDS 02/2023</u>*

# An example of how to use classification: Eco-budget

The Eco-budget is a useful tool for measuring the pro-environmental impact of government expenditures.
This is the first processing of new data and there is not much literature available on the method of classifying this type of expenditure.
Next Table, present in Poster IAERE 2024, proposes a new approach to reclassify the NRP's "Eco Budgeting" target (Milestone M1C1-110 to be achieved by the fourth quarter of 2023).
We use this approach in order to have a broader and more meaningful set of information on the magnitude of the phenomenon.

# Italian Eco-budget

The starting point is data on environmental expenditure by programs and actions, contained in the Budget 2022 of the Ministry of Economy.

The classification according to the coding of the Management Plan of the General State Budget with reference to environmental expenditure is reclassified with that of environmentally sustainable economic activities (see **SEEDS WP Montella, 2023**) and linked to the CEPA and CREMA classification used by environmental accounting.

The amount is equal to **1.3 % of GDP**, which is also important to justify spending in the review of the Stability and Growth Pact. Today, the issue is that **we do not know how much the state is spending on climate change mitigation and adaptation in the current climate crisis**.

# Italian Eco-budget

| Environmental sector | ECO - codifies six environmental objectives of sustainable economic activity (Montella 2023) | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1. Climate change mitigation | 2. Climate change adaptation | 3. The sustainable use and protection of water and marine resources | 4. The transition to a circular economy | 5. The prevention and reduction of pollution | 6. The protection and restoration of biodiversity and ecosystems | Number BALLS CEPA-CREMA | Italy Eco-Budgets-Environmental Expenditure 2022 (millions of euros) | GDP Year2022 (millions of euros) | The impact of six environmental objectives public spending on the GDP |
| **CEPA 1**: air and climate protection | ● |  |  |  |  |  | 1 | 3.012 |  |  |
| **CEPA 2**: waste water management |  |  | ● |  |  |  | 1 | 621 |  |  |
| **CEPA 3**: waste management |  |  |  | ● |  |  | 1 | 472 |  |  |
| **CEPA 4:** protection and remediation of soil, groundwater and surface water |  |  |  |  |  | ● ● | 2 | 2.241 |  |  |
| **CEPA 5:** Noise and vibration reduction |  |  |  |  | ● ● |  | 2 | 4 |  |  |
| **CEPA 6:** protection of biodiversity and landscape |  |  |  |  |  | ● | 1 | 1.160 |  |  |
| **CEPA 7:** Radiation protection |  |  |  |  | ● |  | 1 | 8 |  |  |
| **CEPA 8:** Research and development for environmental protection |  |  |  |  |  | ● | 1 | 1.964 |  |  |
| **CEPA 9:** Other environmental protection activities | ● | ● |  |  |  |  | 2 | 18.240 |  |  |
| **CREMA 10:** water management |  |  | ● ● ● ● |  |  |  | 4 | 1.022 |  |  |
| **CREMA 11:** management of forest resources | ● | ● |  |  |  | ● | 3 | 134 |  |  |
| **CREMA 12.** Use and management of wild flora and fauna |  |  |  |  |  | ● | 1 | 131 |  |  |
| **CREMA 13.** Use and management of non-renewable energy raw materials | ● ● ● ● |  |  |  |  |  | 4 | 1.395 |  |  |
| **CREMA 14:** management of minerals |  |  |  | ● |  |  | 1 | 3 |  |  |
| **CREMA 15.** Research and development for the use and management of natural resources |  |  | ● |  |  |  | 1 | 1.051 |  |  |
| **CREMA 16.** Other activities of use and management of natural resources |  |  | ● |  |  |  | 1 | 2.418 |  |  |
| *Protection and defense of the soil, protection of the hydrogeological structure, Prevention and reduction of electromagnetic pollution* |  |  |  |  | ● ● ● |  | 3 |  |  |  |
| *Sustainable and smart mobility* | ● ● |  |  |  |  |  | 2 |  |  |  |
| *Measuring spending on interventions aimed at building energy efficiency* | ● |  |  |  |  |  | 1 |  |  |  |
| **Number Balls six environmental objectives** | 10 | 2 | 7 | 2 | 6 | 6 | 33 |  |  |  |
| **Committed competence 2022 (millions of euros) Source MEF** | 14.684 | 11.913 | 3.314 | 308 | 8 | 3.651 |  | 33.879 | 2.688.994 | 1,3 |

*Source: Montella, Poster IAERE 2024*

# Conclusions and Outlook

- ✓ The objective of this presentation is to suggest the adoption of a new classification, starting from the European taxonomy, to be included in the environmental and national accounts.
- ✓ This classification focuses on the system of sustainable economic activities, or "ECO list" as the new ECO-SEA classification - codification of environmentally sustainable economic activities.
- ✓ An EU-wide classification system will mean that we will have a uniform and harmonized way of determining which economic activities can be considered sustainable.
- ✓ This is essential for the EU to become the first climate-neutral continent by 2050, as well as for urgently tackling biodiversity loss and other environmental challenges.
- ✓ For to build new indicators it is necessary to use a common language to define the actions in favour of the climate undertaken at the European level. It is therefore essential to propose new indicators capable of measuring in progress.
- ✓ For example Eco-GDP, PA eco-expenditure, and household eco-consumption can represent the new indicators, useful for having a macro measure of the economic actors favourable to environmental sustainability.
- ✓ This also helps to understand where we are in achieving the goals of the 2030 Agenda for sustainable global development.
- ✓ This first step of using the ECO classification may help to better identify environmental objectives, but this proposal will require further investigation by environmental accountants.
- ✓ In the 55th Meeting of the European Statistical System Committee - European Strategy for environmental accounts 2024-2028 we can read "*There are other new non-statistical data sources becoming available, such as the taxonomy for sustainable finance*".
- ✓ **Environmental accountants must follow up** developments in those sources and devise solutions to feed them into environmental accounts. If not now, when?

# Thanks for your attention
# Monica Montella

Italian National Institute of Statistics (ISTAT)

Staff Central Directorate for National Accounts

Department for Statistical Production

Via Agostino Depretis, 74/b 00184 Rome

Office Tel: +3906-4673-3203 –

mobile 3387772853 montella@istat.it

*The theses expressed are personal and do not in any way bind the institution to which they belong*

**www.monicamontella.it**